

8-Port Gigabit 802.3at/af PoE Switch

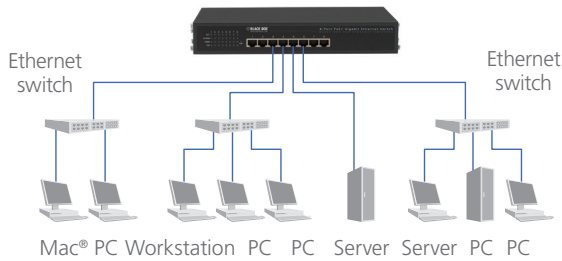


Figure 3-1. Application #1.

3.2 PC/Other Devices to 8-Port Gigabit 802.3at/af PoE Switch

You can connect this switch to PCs, servers, and other network devices using a straight-through Ethernet cable.

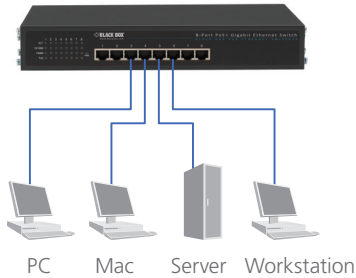


Figure 3-2. Application #2.

3.3 Connecting a Powered Device to the Switch Using Power over Ethernet (PoE)

Using a CAT5 cable, connect the powered device (PD) to any of the eight ports on the switch. The switch will detect the PD and supply 48-V power to the device over the CAT5 cable.

NOTE: The PD must comply with the IEEE 802.3at/af standard.

4. Operation

LED indicators on the 8-Port Gigabit 802.3at/af PoE Switch's front panel show status.



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Table 4-1. LEDs and their Functions.

| LED | Status | Description |
|--------|--------|---------------------------------------|
| ACT | On | Port is connected |
| | Off | No connection to port |
| 10/100 | Off | Port is connected to 10 Mbps |
| | On | Port is connected to 100 Mbps |
| 1000 | On | Port is connected to 1000 Mbps |
| | Off | — |
| PoE | On | Port is linked to powered device (PD) |
| | Off | No powered device (PD) is connected |

Customer Support Information

Order toll-free in the U.S.:
Call 877-877-BBOX
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FREE technical support
24 hours a day, 7 days a week:
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LPB1308A, rev. 1



LPB1308A

8-Port Gigabit 802.3at/af PoE Switch

Add 8 PoE devices to your existing Gigabit LAN.



1. Specifications

Buffer Memory — 1.625 Mbits

Certifications — FCC Class A

Filtering/Forwarding Rates —
1000-Mbps port: 1,488,000 pps;
100-Mbps port: 148,800 pps;
10-Mbps port: 14,880 pps

MAC Address — 4 K

Transmission Method — Store-and-forward

Transmission Media —
10BASE-T: CAT3, 4, 5 UTP/STP;
100/1000BASE-TX: CAT5 UTP/STP

Standards — IEEE 802.3at/802.3af, IEEE 802.3i
10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab
1000BASE-TX, IEEE 802.3x flow control

Connectors — (8) RJ-45 PSE/PoE

Indicators — (33) LEDs: Per port: (1) ACT, (1) 10/100,
(1) 1000, (1) PoE;
Per unit: (1) Power LED

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Temperature Tolerance — Operating: +32 to +131° F (0 to +55° C);
Storage: -4 to + 194° F (-20 to +90° C)

Relative Humidity — 10 to 90%, noncondensing

Power — Input: 100–240 VAC/50-60 Hz;
Output: 48 VDC per port, (8) ports at full 30 W output supported;
Consumption: 250 watts (maximum)

Size — 1.8”H x 7.3”W x 11”D (4.5 x 18.5 x 28 cm)

Shipping Weight — 5.1 lb. (2.3 kg)

2. Overview

2.1 Introduction

This switch provides eight 10-/100-/1000-Mbps ports. It was designed for easy installation and high performance in an environment where traffic is on the network and the number of users increases continuously.

The switch installs where space is limited and provides smooth network migration and easy upgrade to network capacity. It can be rackmounted in a 19” cabinet or rack.

2.2 What’s Included

Your package should contain the following items. If anything is missing or damaged, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- (1) 8-Port 802.3at/af PoE Gigabit Ethernet Switch
- (1) power cord
- (1) rackmount kit: (2) brackets, (2) screws
- This user’s manual

8-Port Gigabit 802.3at/af PoE Switch

2.3 Features

- Each port autonegotiates between 10, 100, and 1000 Mbps.
- All eight ports support PSE/PoE.
- Supports up to 30 W maximum power for each PSE/PoE port.
- Mounts in a 19” rack.
- Auto-learns network configurations.
- Auto-detects full-/half-duplex modes for any port.
- Offers dedicated full-duplex 2000-Mbps bandwidth.
- Store-and-forward switching methods.
- IEEE 802.3x flow control for full-duplex and back-pressure flow control for half-duplex operation.
- Non-blocking and non-head-of-line blocking full wire-speed forwarding.
- Auto-MDI/MDI-X function for any port.
- Smart plug-and-play.

2.4 Hardware Description

Figures 2-1 and 2-2 show the switch’s front and back panels. Table 2-1 describes its components.

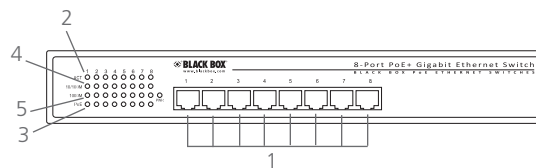


Figure 2-1. Front panel.

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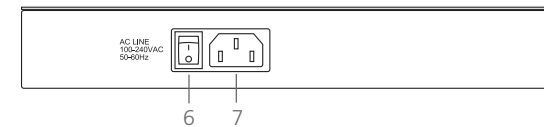


Figure 2-2. Back panel.

Table 2-1. Components.

| Number | Component | Description |
|--------|----------------------|--|
| 1 | (8) RJ-45 connectors | Link to 10/100/1000 Ethernet devices |
| 2 | (8) ACT LEDs | Lights when port is connected; flashes when data is transmitting or receiving. |
| 3 | (8) PoE LEDs | Lights when port is linked to power device; Off when no power device is connected. |
| 4 | (8) 10/100 LEDs | Off when port is connected to 10 Mbps; On when ports is connected to 100 Mbps |
| 5 | (8) 1000 LEDs | On when port is connected to 1000 Mbps |
| 6 | Power LED | Lights when power to the unit is on |
| 7 | 3-prong receptacle | Links to 100–240 VAC power cord |

3. Installation

3.1 Switch/Hub to 8-Port Gigabit 802.3at/af PoE Switch

This switch provides automatic crossover detection for any port so it’s simple to uplink to another switch without using a crossover cable.